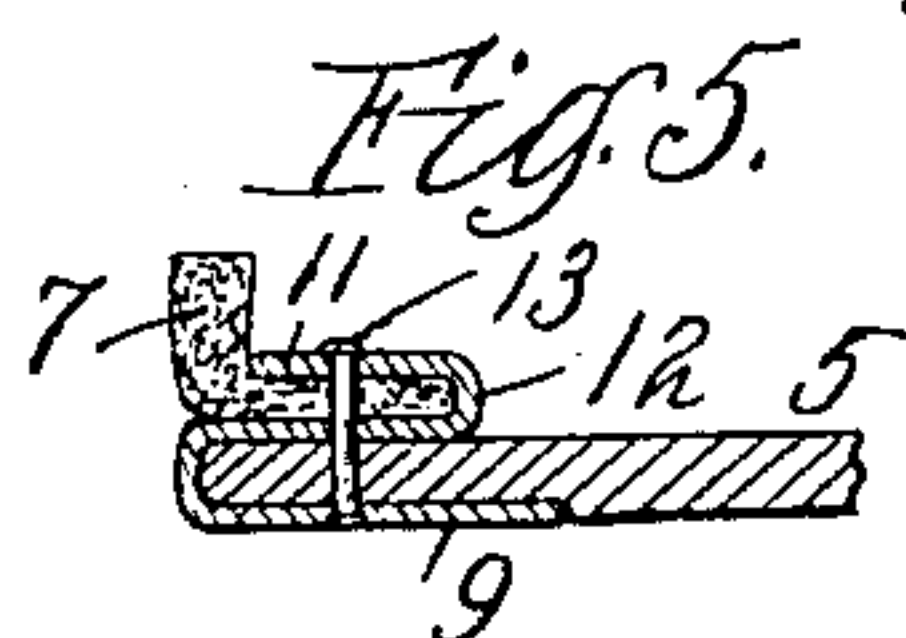
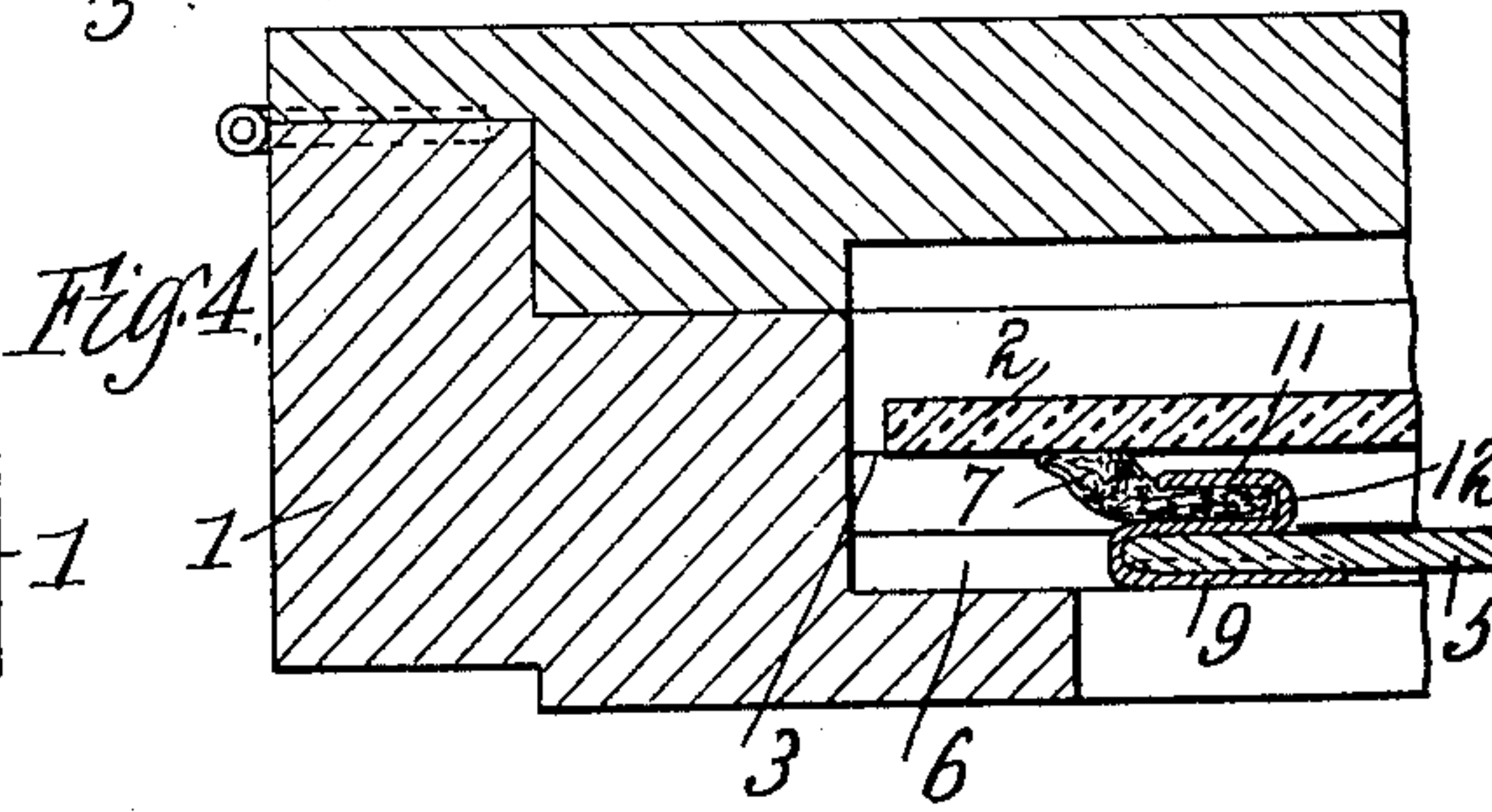
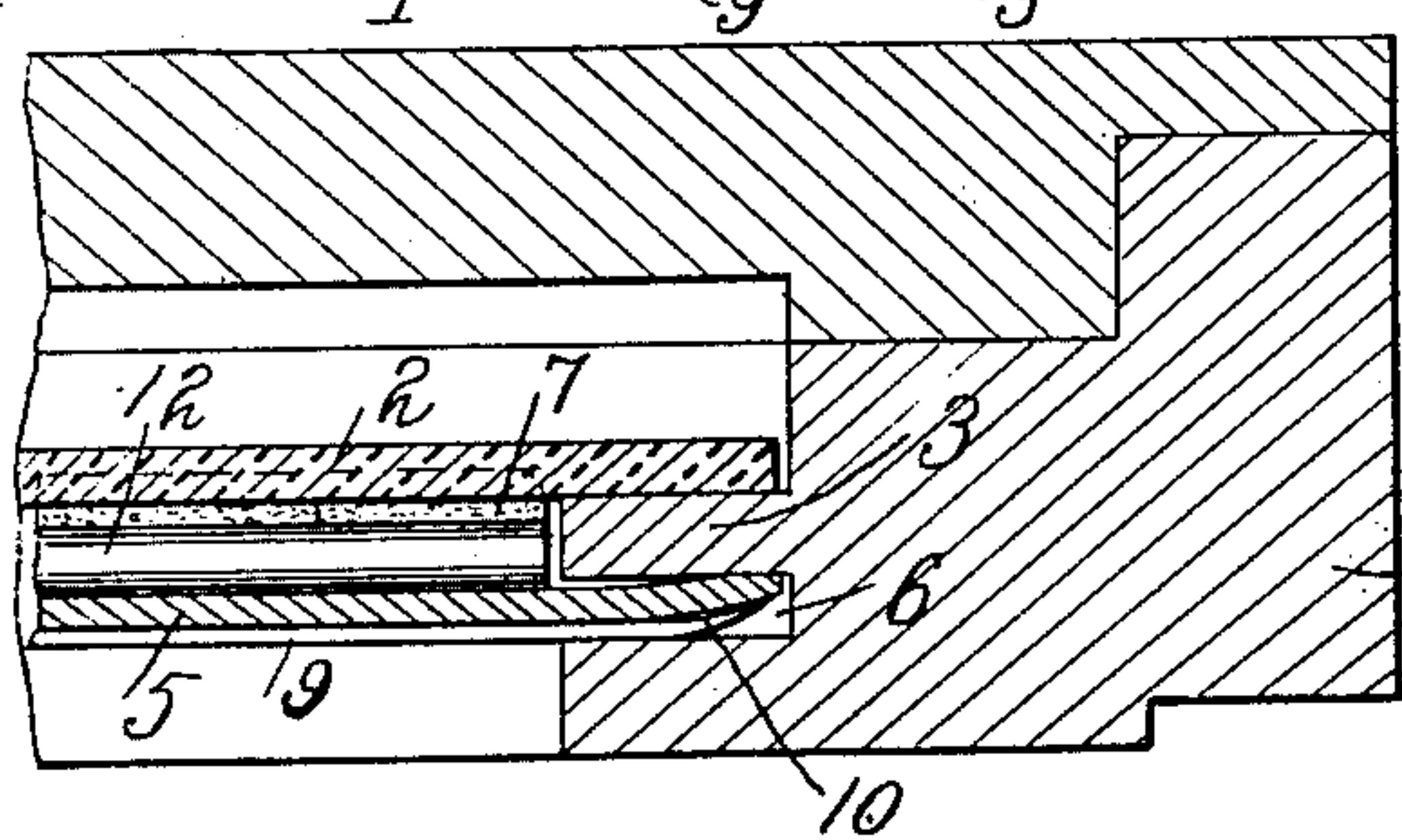
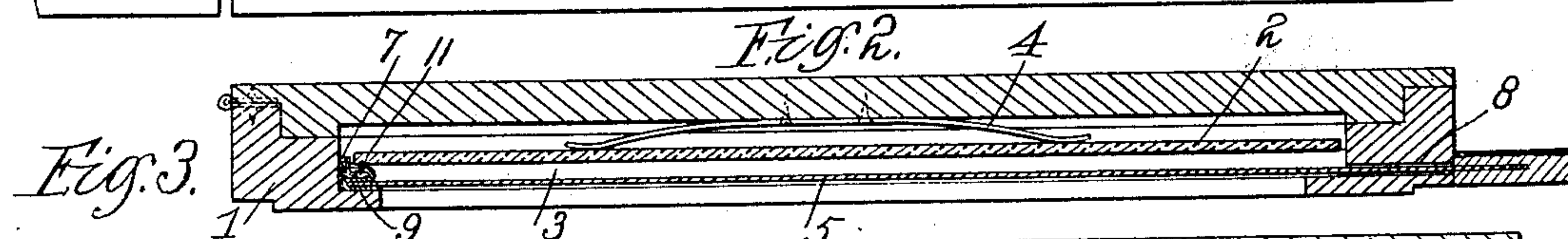
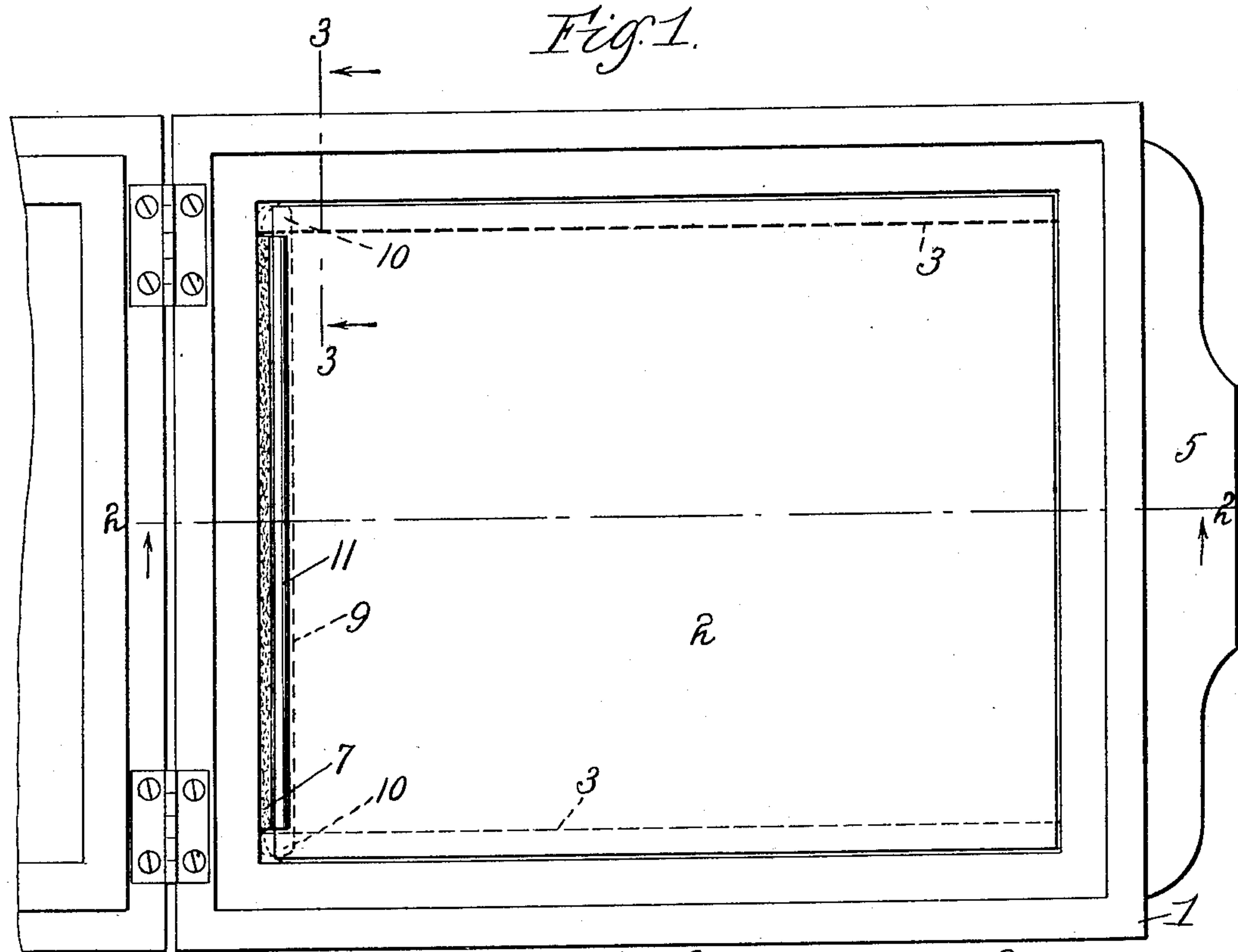


(No Model.)

O'RELL W. HODGES.
PHOTOGRAPHIC PLATE HOLDER.

No. 547,487.

Patented Oct. 8, 1895.



Witnesses.

Sp^{rs} M. Phelps.
Edna B Johnson.

Inventor:
O. W. Hodges
by Elliot & Hopkin
Atty's

UNITED STATES PATENT OFFICE.

O'RELL W. HODGES, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
JOHN C. LEEDY, OF SAME PLACE.

PHOTOGRAPHIC-PLATE HOLDER.

SPECIFICATION forming part of Letters Patent No. 547,487, dated October 8, 1895.

Application filed December 5, 1894. Serial No. 530,944. (No model.)

To all whom it may concern:

Be it known that I, O'RELL W. HODGES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Means for Automatically Removing Dust, &c., from Photographic Plates or Films, of which the following is a full, clear, and exact specification.

It is well known that the transparent spots which often occur in the sensitized photographic surface, and which are a great source of annoyance and expense, are due to the presence of dust or small particles of foreign opaque matter on the surface of the plate or film while the exposure is being made, and such surface is apt to become sprinkled with these small particles even after it has been carefully dusted and placed in the holder.

My invention is designed to overcome these difficulties, and it has for its primary object to provide improved means for automatically dusting the photographic surface immediately before the exposure is made, whereby the liability of dust collecting upon such surface between the time that the latter is exposed to the interior of the camera and the time that the image is thrown thereon will be reduced to the minimum.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said object and certain other objects hereinafter appearing are attained, all as fully explained with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a face view of an ordinary plate-holder, showing the hinged sections open and embodying my improvements. Fig. 2 is a longitudinal section thereof, taken on the line 2 2, Fig. 1, the sections being closed. Fig. 3 is a transverse sectional view, on an enlarged scale, taken on the line 3 3, Fig. 1. Fig. 4 is an enlarged detail sectional view taken on the line 2 2, Fig. 1, showing the slide partially drawn; and Fig. 5 is a detail sectional view of the brush, illustrating a modification hereinafter explained.

Like signs of reference indicate like parts throughout the several views.

In carrying out my invention I arrange a brush or wiper, composed of plush, velvet, cloth, or some other suitable material, in such a position in the plate-holder or film-holder that the withdrawal of the slide or the advancement of the film will cause such brush to engage and wipe the sensitized surface.

Referring now more particularly to Figs. 1 to 4, 1 represents the plate-holder, shown in the drawings as a two-part hinged holder; but the construction of the holder, *per se*, is, of course, immaterial, and my improvements may be applied to a holder of any other form.

2 represents the sensitized plate held against the usual shoulder or flange 3 by means of a spring 4, and 5 indicates the slide which covers the sensitized surface and whose edges slide in the usual grooves 6.

7 represents the brush or wiper, which may be composed of any suitable material, but preferably of some soft fabric, like plush or velvet, which will thoroughly remove the dust without scratching the sensitized surface. This brush 7 is attached to the inner end of the slide 5, so that when the slide is withdrawn preparatory to making the exposure the brush will be drawn across the entire surface of the plate, and thus automatically thoroughly cleanse the latter before the image is cast thereon.

For various reasons it is desirable to entirely withdraw the slide from the plate-holder when exposing the plate, and this heretofore necessitated the employment of a valve or flap to close the slot 8 in the end of the plate-holder, through which the slide passes; but in my invention I prefer to dispense with such valve or flap and cause the brush to perform the twofold function of dusting the plate and also closing the slot 8 when the slide is withdrawn. In order to accomplish this, I so construct the brush that it will cling to the slide until it strikes the end of the holder adjacent to the slot and will then let go, permitting the slide to pass on out, while the brush will remain over the slot 8 and in position to be again forced to the opposite end of the holder by the slide when the latter is inserted. In order to do this, I provide the brush with a spring-socket adapted to receive and cling to the inner end of the slide 5, in the manner

more clearly shown in Fig. 4. This socket is preferably constituted by bending a piece of metal 9 or other suitable material into a U shape in cross-section—that is, folding it over
 5 upon itself—so as to admit the slide and cling to the latter until it encounters the end of the holder. The ends 10 of this socket are carried across into the slots or grooves 6, and such ends are so bent, as shown in Fig. 3, that
 10 they will bind in the said grooves and hold the brush 7 in the position in which it is left by the slide. The lower fold of the strip 9 is extended transversely, so as to enter the slot 8 when the slide leaves it, while the upper
 15 fold is provided with a reverse turn or fold 11, forming a shoulder 12, which latter comes against the end of the holder and completely closes the slot 8. This reverse fold 11 also serves as a means for securing the brush 7,
 20 the latter being pinched between the two folds of the strip, as will be understood. The shoulder 12, being rounded, also constitutes a guide for the end of the slide and avoids the possibility of the latter catching on the edge
 25 of the socket without entering it. If desired, however, the brush may be secured permanently to the slide 5 by the simple method shown in Fig. 5. The rivet 13 is passed through the slide and the metallic strip, which
 30 receives its end and holds the brush.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. The combination with a holder for photo-
 35 graphic surfaces and a slide for covering said

surfaces, of a brush detachably secured to said slide and adapted to bear upon said surface, substantially as set forth.

2. The combination with a holder for photographic surfaces, and a slide for shielding said
 40 surfaces, of a brush arranged in said holder and having a socket adapted to receive the edge of said slide and thereby detachably secure said brush to the said slide, substantially as set forth.

3. The combination with a holder for photographic surfaces, having the grooves 6 and the slide, of a brush detachably secured to said slide and adapted to project across said
 50 surface, and having spring ends wedged in said grooves, substantially as set forth.

4. The combination with a holder for photographic surfaces, having the groove 6 and slot 8, and a slide adapted to fit in said grooves and slot, of a brush provided with ends or
 55 projections arranged in said grooves and having a spring socket located opposite said slot 8 and adapted to receive the end of said slide, substantially as set forth.

5. The combination with a holder for photo-
 60 graphic surfaces, having a slide, of a strip folded upon itself and embracing said slide, a brush adapted to bear upon said surfaces, and said strip also having a return fold 11 pinching and holding said brush, substan-
 65 tially as set forth.

O'RELL W. HODGES.

Witnesses:

E. A. HOUGHTON,
 A. E. HOUGHTON.